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SELL *IT* SAP UPGRADE IMPLEMENTATION – SHOULD CHANGE MANAGEMENT BE AS EXTENSIVE AS THE EFFECT OF THE CHANGE?

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ABSTRACT

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The objective of this master's thesis was to consider whether the energy invested in change management should be as extensive as the effect of the change. There are many factors and considerations that must be taken into account prior to the selection of the solution method. This thesis discussed the most important factors that help determine the solution methodology and the degree of change management activities needed. In addition, the means to classify and measure the change are examined.

The case study method was used to investigate the central question of this thesis. The case study material was based on information from a large technical change in the critical application of the UPM-Kymmene Oyj (UPM) business that took place during 2009 – 2010. The case study used information from several surveys that were executed among the stakeholders. In addition, smaller groups were interviewed to evaluate the extent of the need for change management in the project. The results of the thesis were also based on observations made during the project, UPM's change management material, and experiences and material received from the Change Expert training by Changefirst Ltd.

The findings of this thesis indicated that the amount and extent of change management should be scaled to the whole change process from the current situation to the future stage instead of only focusing on the extent of the final effect of change. The need for change management should never be underestimated, and it should be carefully investigated. Culture is an essential component of change, and the level of cultural cohesion is one of the main factors affecting the extent of the need of change management.

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1 INTRODUCTION

The implementation of change requires proper change management. It is not always clear how many resources or what kind of activities are needed for change management. Especially in situations in which change and its phases and effects are well-known to the executors of the change, the need for change management is easily underestimated.

My nomination as the Change Expert for an IT project at UPM increased my interest in change management. When familiarising myself with change management, I noticed that change management literature concentrates mostly on organisational change while other kinds of change processes are often ignored. The usual assumption is that the change will have a big impact on people. This would suggest that change management on the level of attitudes is not needed if the change has no notable effect on people.

Literature of information technology projects often refers to change management without giving means for planning the change management resources needed in the implementation phase. Project management literature, however, usually does include change management, but it concentrates on defining what change management is instead of assessing the extent to which it is needed. Despite the fact that we currently live and work within a world of continuous change, I could not find any references advising how to resource the change management effort. It can be assumed that change management should be as extensive as the effect of the change, but that is not necessarily true. For example, that assumption might be wrong assumption in a case where the final effect of the change is minor while the change itself is significant.

There is a substantial amount of literature on change management, but most of it concentrates on organisational changes – the different phases of implementation and the ways of motivating people for change. The most prevalent assumptions in literature are that the change is very big, that it is related to the personnel rather than technology, and that it will involve either new ways of working or further changes which will create resistance. If the situation is opposite, the need for change management may be questioned.

There is project management literature which deals with IT change, but the premise assumption is again that the effect of the change on the target group will be significant. If a feasibility study shows that the change will involve no new functionalities, it can be automatically assumed that training is not needed at all. It is easy to underestimate the need for change management.

There were many questions without answers during the UPM IT project. Mike Green (2007) did not provide answers to my questions, nor did Robert A. Paton & James McCalman (2008), even though both sources claimed to provide step-by-step guidance to managing change.

The objective of this master's thesis was to study whether change management should be as extensive as the effect of the change. The purpose was to identify the most determinant factor when deciding the extent of the change management activities that are needed; is it the change itself, the effect of the change, the readiness of the target group, or something else. The subject of this thesis is significant for a person who is planning change and the extent of the change management resources needed in that process. This thesis may help in planning the nature and scope of the necessary change management activities.

The hypothesis is that change management should be as extensive as the effect of the change – the scope of the change management needed depends on the amount of disruption created in an individual employee's day-to-day work, and on organisational attributes like culture, value system and the history of past changes.

This thesis is based on change management literature, UPM's change management material, and a case study concerning the Sell *it* SAP upgrade project (SISU) at UPM. The project timeline was from May 2009 to April 2010. The objective of the SISU project was to perform a technical upgrade of Sell *it* application from SAP 4.6B to 6.0 including mandatory related changes while preserving existing business functionalities in order to reduce operational risks and to build future capabilities. The technical change was very complex and challenging but the effect on the end users (the business personnel) was inconsequential.

It is important to avoid pitfalls and never underestimate the importance of change management. That is why this thesis focuses on answering the questions specified in

this introduction and helps to determine what the correct extent of change management effort is, and whether it directly correlates with the measure of the effect of the change.

Change and change management are defined in the chapter after the introduction. The focus of this thesis is on my personal development and observations during the case study project which was the driving force to this thesis. The case study is introduced in the third chapter. The UPM change framework, the development process and the development of my own expertise are critically evaluated in the following three chapters. The last chapter includes the conclusions. The cultural aspect is emphasised separately in each section as its importance was evident in the global case study project and its importance became even more significant to me while writing this thesis. The level of cultural cohesion is one of the main factors affecting the extent of change management.

2 CHANGE MANAGEMENT

2.1 Change

Change is something that presses us out of our comfort zone. Whenever people stay in an established situation for any period of time, they usually develop established ways of thinking, feeling and behaving. People become 'locked' into patterns of behaviour, systems and procedures. Change disrupts these established ways of thinking, feeling and behaving (see Figure 1). Therefore, we are more willing to implement change that be the objects of change.

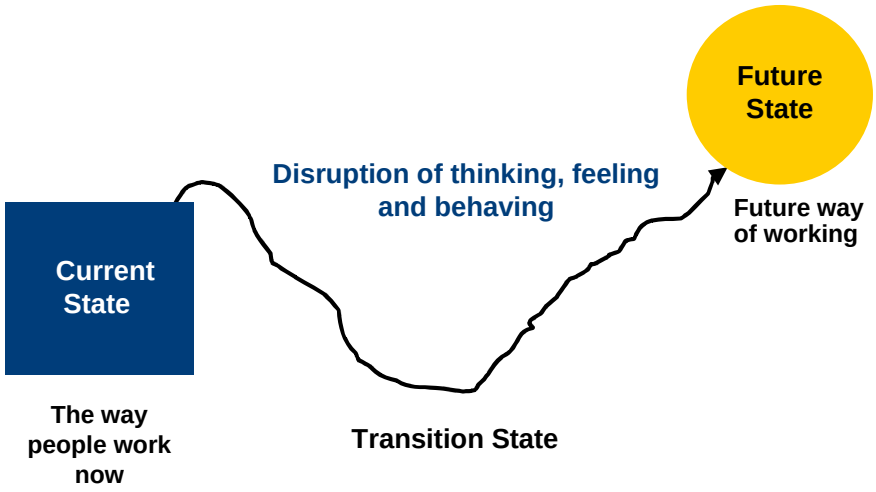

Figure 1.

Change is either for better or for worse, depending on the viewpoint of the individual. The concept does not only refer to the final effect of change (the future state). Instead, change comprises the whole transition from the current state to the future state.

There are a number of levels of change (Stace and Dunphy, 2002. Ref Mike Green, 2007, 22):

Level 1 – Fine Tuning is continuous improvement and development. Examples of these are policy and process changes or training programs related to strategy, refining, clarifying, interpreting group norms, or to operating procedures.

Level 2 – Incremental adjustment refers to relatively modest changes around the organisation resulting of external causes for the change. Typically the changes involve strategy, structure and management process.

Level 3 – Modular transformation entails major restructuring and realignment, for example, the centralisation of HR into shared services or the introduction of new information systems that redefine key business processes.

Level 4 – Corporate transformation means fundamental and radical changes to the structure, systems and processes across the whole organisation, for example, a change in the organisational business strategy involving a new statement of vision, mission or values.

The demand for change is accelerating. Change is becoming more complex. Stakeholders are more demanding both in terms of the speed and quality of delivery. Many complex changes, re-organisation, change of business processes, major systems and technology change, may often take place at the same time. Working in a global matrix makes the implementation of change much more complex than it would be in a simple line organisation.

2.2 Measuring Change

Change can be measured by its impact on all who are connected to it. Situations before and after are compared in order to evaluate the change. Change management literature usually emphasises the importance of monitoring and evaluating the outcomes of the change in other words, whether the objectives were met. It is essential to take measures before initiating a change in order to acquire sufficient data to compare the post-project results to. Of course the real impact of the change cannot be measured until afterwards when the change has already taken place. Evaluating the impact beforehand is also important when planning the necessary change management measures. (Park 2009)

The means of measuring the objectives will depend on the change project. For example, organisational performance in finance is measured by turnover, profit, cost, loss, share price and return on investment (ROI). On the other hand, organisational performance in HR is heavily dependent on the level of engagement of its staff. The rate of staff turnover and associated recruitment costs, absenteeism, average length of service, number of disciplinary and grievance cases, and the results of employee surveys are used as engagement and employee satisfaction measures. An analysis of the information from the measures should not only reveal the current level, but could also help to set targets, objectives and budgets for the future planning, training and development initiatives, and recruitment.

Depending on the initiative, the measures may or may not focus on the desired effect. Therefore, it is very important to already at the outset of the project determine what outcomes are expected, as well as how and when they will be measured. According to Park (2009), the measures will either focus on the performance of functions, processes or people.

Another way to measure change is to evaluate the amount of resistance to change. Resistance to change can come in many forms and at different times during the change process. People resist change because they fear the unknown and are comforted by the familiar. Resistance to change can be reduced, but it cannot be eradicated. There are always forces for and against the change. The resistance is not only about people, there might also be something in the structure, culture or the organisational environment, which effects the change positively or negatively. In addition, it is important to analyse the reasons for the resistance.

The following questions provide a useful tool for evaluating the extent of resistance (Honkanen, 2006, 370):

- Who are actively against the change?
- Who are negligent?
- Who are responsive?
- Who will help to achieve the change?
- Who will participate in the implementation of the change?

The reasons for resistance are usually very human and simple, and they can be avoided by easy and simple actions. The most common reasons for resistance according to Lanning, Roiha and Salminen (1999, 138) are:

- Fear
- Quest for freedom and habits
- Lack of personal benefit
- Lack of understanding the need for change
- Frustration
- Lack of understanding one’s individual role in the process

Other important perspectives in the evaluation of resistance are the amount of disruption created and organisational attributes such as culture, value system, and the history of past changes.

2.3 What is Change Management?

All the major changes in life have an emotional impact on individuals in one way or another. The first day at school, beginning life as an independent adult, changing jobs and fitting in with new people and work environments, and realigning loyalties to different employers and business cultures, are all likely to be memorable changes. Coping with the sudden death of a close friend or a family member may change the whole outlook on life in an instant. In addition, there are changes brought about by events such as marriage or divorce, becoming a parent or a grandparent, retiring or moving house; the list goes on and on.

The most traumatic changes are usually the ones that were not planned or managed in a controlled way. In many cases, it is known that certain changes will take place and their timing is also known. An individual can plan and be prepared for changes on both personal and practical levels. For example, having children will change one's life, and that change can be planned and prepared for by taking actions in advance: buying clothes, toys, rethinking the finances and so on. All those actions are preparations for the big change. There is a vision of how things should turn out and consequently there are various steps taken to ensure everything happens as planned. That is change management. (Ventris 2004, 5.)

Change management is a systematic approach to dealing with change, both from the perspective of an organisation and that of an individual. Change management has at least three different aspects: adapting to change, controlling change and effecting change. A proactive approach to dealing with change is at the core of all three aspects. For an organisation, change management entails defining and implementing procedures and/or technologies to deal with changes in the business environment and to profit from changing opportunities. (http://searchcio-midmarket.techtarget.com/definition/change-management. 2007.)

Successful adaptation to change is as crucial within an organisation as it is in the private sphere of life. Organisations and individuals inevitably encounter changing con-

ditions that they are powerless to control. The more effectively one deals with change, the more likely one is to thrive.

Research into how people respond to change has identified that people react in very similar and predictable ways when confronted with disruptive change. The reactions to change are described in the figure 2.

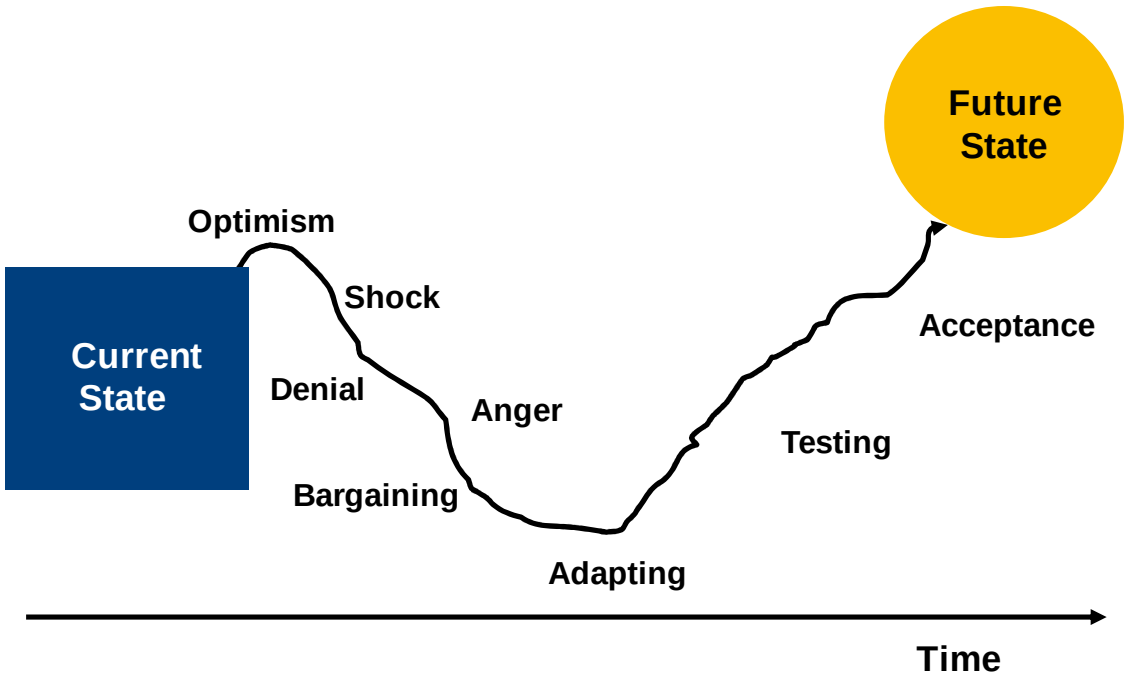

Figure 2. Change Curve

People go through these stages individually, taking their own time and their own pace. It is possible that a person needs to go back to the beginning at some point and repeat certain stages several times. It may even happen that someone gets stuck at some stage.

The concept of change management refers to actions which help people to go through the change curve from the current state to the future state. (Figure 2: UPM change management material, originally from Adams, Hayes and Hopson 1976)

Change is disruptive and disturbing. Change management helps people to experience change and cope with the pressure of changes. If one can change before one *has to* change, there will be less pain.

The amount of change management activities needed depends on the amount of disruption created both in the individual employee's day-to-day work and the organisational attributes like culture, value system and the history of past changes.

Resistance to change is actually resistance to uncertainty. The resistance derives from the process of handling and managing change, not necessarily from change itself. Change may be easier to accept if people understand what is to be achieved, why, how and by whom. Understanding the impact of change on their own situation helps even more. (Carnall 2007, 4.)

Change creates risks, uncertainties and costs. In order to engage commitment to change, a shared vision of how the situation can be improved, and shared aims for the future, need to be generated. (Carnall 2007, 210.)

According to Carnall (2007, 255) there are three necessary conditions for effective change; awareness, capability and inclusion.

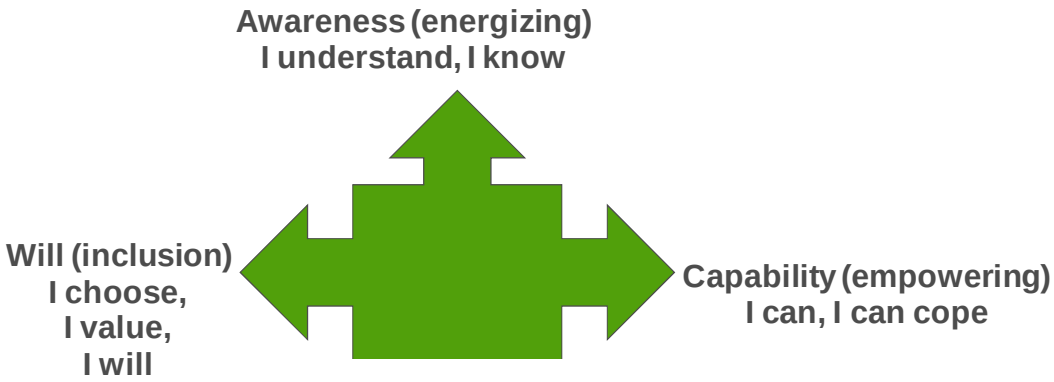

Figure 3. Necessary Conditions for Effective Change

First, for the change to be successful, those involved must understand the change, its objectives, their own role in it and so on. The main focus of change management in the early stage is on creating *awareness*. Proper change management right from the beginning helps people cope with their reactions, like denial and anger, in the beginning of the change curve (Figure 2). In order to achieve change, people must recognise that change is desirable and feasible.

Secondly, people involved must have, or be helped to acquire, the necessary *capabilities* to handle the new tasks and new work situations. This phase may include training and testing. People must feel that they can cope with the new situation. During this phase, change management supports people in letting go of the past and looking forward to the future. It is crucial that this process phase is given adequate time. Individuals need time to adapt to the new situation. In this phase, optimistic feelings emerge and people start to talk openly and constructively about the change. People are in the adapting and testing phase in the change curve (Figure 2).

Finally, people must feel *included* in the change process. Those involved need to feel that they *want* and *value* the new objectives. They should feel both that they chose the new objectives and that they were able to choose them. This feeling will engage people in the change and increase their acceptance and commitment.

2.4 Change Classification

Before the final selection of change management methodology, a full definition of the change environment is required. There are many factors and considerations that must be taken into account prior to selecting a solution methodology. By analysing and considering the nature of the change, one can determine its likely scope and potential impact.

According to Paton & McCalman (2008, 18), there are six key factors associated with successful change classification:

1. **The selection and role of the problem owner.** The right person for the job in terms of their managerial skills, involvement and commitment to the problem or project.
2. **Locating change on the change spectrum.** Determining the nature of the change with regard to both its physical and organisational impact. Is it, for example, a purely technical or more complex people-related change?
3. **The TROPICS test.** A quick, yet effective, means of addressing the following key factors affecting the classification of a change situation: time scales, resources, objectives, perceptions, interest, control and source. By considering the change in relation to the above mentioned factors, an enhanced knowledge of the nature of change can be obtained and the optimal route forward can be determined.

4. **Force field analysis: a positioning tool**. A diagramming technique that assists in answering questions such as: what forces are at play and what is their likely extent? Who is for the change and who is against it? Can a proactive stance be adopted? The aim is to determine the nature and magnitude of the forces acting upon the change environment.
5. **Success guarantors: commitment, involvement and the shared perception.** Successful change management requires an understanding of the likely impact of the change on the systems most affected by it, and thereafter the development of means of establishing a shared perception of the problem among all concerned. The visible commitment and involvement of those charged with managing the change and those affected by it are crucial to achieving effective transition management.
6. **Managing the triggers.** Change can be triggered by either internal or external events. The problem owner, or change agent, must understand both the likely impact of the trigger and how best to handle its subsequent post-impact management. The nature of the trigger will influence the reaction of the organisation and its staff, along with the associated supply chains, to the impending change, as well as assist in determining the appropriate course of action to follow.

Problem ownership affects our perception of a change situation. Positive feelings of ownership will result in a more optimistic evaluation, whereas delegated ownership, which has been managed poorly, will highlight the threats and disrupt existing positions. The problem owner plays a pivotal role in the successful management of change. Therefore the selection of the problem owner is one of the key factors in change management.

Reaction to a change event is influenced by the nature of the change. When the change is of a purely technical nature, such as a machine or component upgrade, the expectation is that the management process is simple as the impact is limited to a clearly identifiable and semi-autonomous component of a technical system. A truly technical problem would be placed at one end of the change spectrum. At the extreme opposite end of the spectrum are change situations that have a 100 per cent orientation towards people. Both extreme ends are uncommon, as most individuals and groups interface with systems of a physical nature.

Table 2. The TROPICS test (Paton and McCalman, 2008, 26)

Tropics factor			Solution methodology (tendency towards)
Time scales	Clearly defined – short to medium term A	Ill defined – medium to long term B	A = hard B = soft
Resources	Clearly defined and reasonably fixed A	Unclear and variable B	A = hard B = soft
Objectives	Objective and quantifiable A	Subjective and visionary B	A = hard B = soft
Perceptions	Shared by those affected A	Creates conflict of interest B	A = hard B = soft
Interest	Limited and well defined A	Widespread and ill defined B	A = hard B = soft
Control	Within the managing group A	Shared outwith the group B	A = hard B = soft
Source	Originates internally A	Originates externally B	A = hard B = soft

Note: 'Hard' refers to a systems-based, mechanistic, solution methodology.
'Soft' refers to an organizational development, complex, solution methodology.

By considering TROPICS (time scales, resources, objectives, perceptions, interest, control, source), the nature of the change can be evaluated. The test is a helpful tool in determining the most appropriate solution methodology for entering the change management process.

Force field analysis is a positioning tool which evaluates the forces for and against the change. Such analysis can also be integrated with the spectrum positioning tool and/or the TROPICS test. By producing a force field diagram for each individual, group or function affected by the change, the relative magnitude of the conflicting forces can be analysed. In addition, one can develop an understanding of the underlying arguments, fears and influencing factors.

Possibly one of the most fundamental steps in achieving a successful implementation of change is to obtain a shared perception, involvement and commitment among those affected by it. If a point can be reached in which all parties with a vested interest in the change view it to identify common objectives and mutual benefits, a great deal of progress has been made.

Being alert to the potential triggers is the first step an enterprise can take on the road to effectively managing change. The key to good management lies in the ability to read environmental signals, categorise them, and take appropriate action.

These six key factors of successful change classification will be evaluated later, in section 3.3, in relation to the case study.

2.5 UPM Change Framework

I participated in UPM's internal two day Change Expert training which was arranged for all who are involved with change in their work. The trainer was from a company called Changefirst Ltd.

The change management material received in the training includes the UPM change framework. It provides a structured change management process which is based on six Critical Success Factors (CSF's) (See Figure 4). It provides people and organisations with the process and tools that can help them thrive through change.

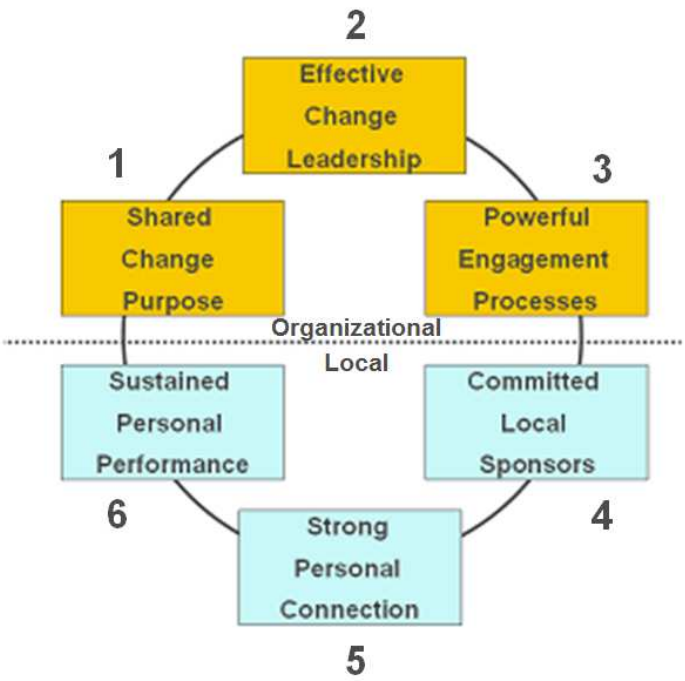

Figure 4. Six Critical Success Factors in the UPM Change Framework

The UPM change framework includes Ralph Stacey's (Professor of Management and Director of the Complexity and Management Centre at the University of Hertfordshire

in the UK) model for considering the degree of certainty and agreement with regard to the change situation (Figure 5).

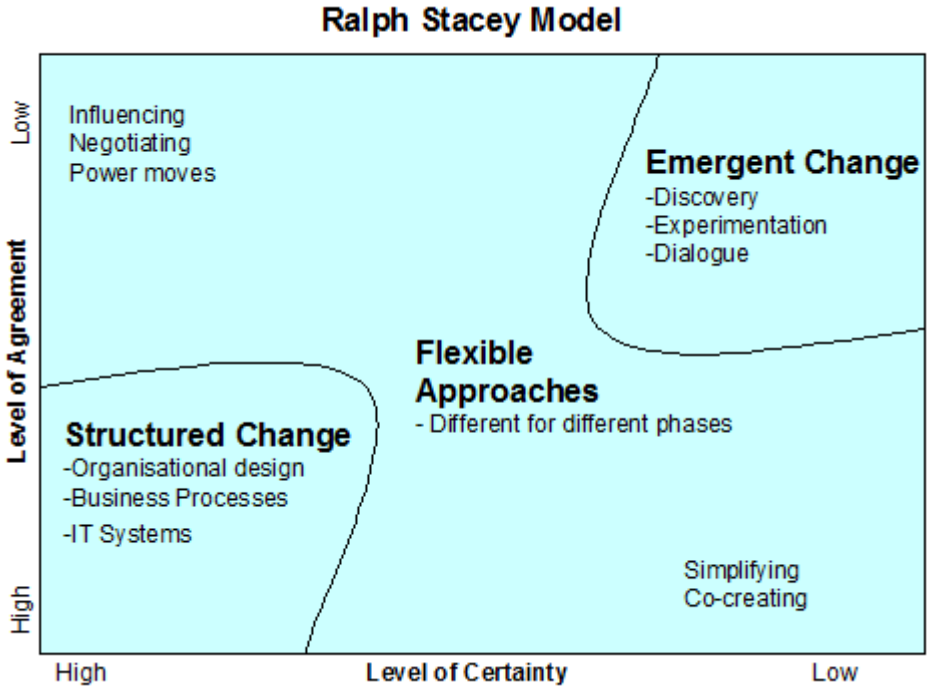

Figure 5. Ralph Stacey's Model for Evaluation of Appropriate Approach

Based on the model, the UPM change framework presents two extreme approaches to change:

Type 1

- The change solution is known or given
- The change is driven from the top
- Decisions have been made at the top and not much input has been gathered
- The likely purpose is creation of economic value – lower cost/increased revenue
- Change is engineered and planned

Type 2

- The change solution is not known or there are several options
- Leaders recognise that it is valuable to get input from a wide range of people

- Purpose may be less tangible e.g. seeking to improve capability or organisational learning
- Change is emergent and experimental with less long term planning

Type 1 approach to change is often used to implement changes where circumstances are more predictable and where there is a fairly clear solution available to the issues driving the change. When a type 1 situation is appropriate, the change implementation techniques focus on communication, motivating the personnel, and resolving anticipated and unanticipated problems with a strong emphasis on milestone achievement and a planned timeline.

Type 2 approach may be required when the circumstances are less predictable and there is no clear solution. Type 2 change techniques were not included in the training material because it was stated that those are difficult to transfer through training and the best way to learn and understand the techniques is to experience them and learn how to facilitate them through practical application with an experienced practitioner.

These two approaches to change often co-exist within the same organisation as different change situations and leadership styles may naturally call for a bias to one approach over the other.

According to the UPM change framework, its use should be scaled appropriately depending on the size and complexity of change initiatives in type 1 situations. One useful way to decide the appropriate level of application and determine resource implications is to assess the change against the LIGHT, MEDIUM and HEAVY criteria presented in Table 1.

Table 1.

	LIGHT	MEDIUM	HEAVY
Analyse the change challenge: understanding people is key **Choose the right tool set: the heavier the change the heavier tool kit is required**	A clear change story exists, but additional work required. Key issue: how to create a sense of urgency. Small number of stakeholders	Change story not evident to all stakeholders: what is in it for me? Key issue: need to sell the big picture Big, but homogeneous stakeholder group	Change can potentially reduce jobs Key issue: honest open answers are required, avoid sense of secrecy Big and heterogeneous stakeholder group
Build the Change Team **Involve users in the implementation team** **How much input from stakeholders**	Team Leader + frequent contact to few key stakeholders 5 – 10% + input from stakeholders	Team Leader plus 3 – 5 team members 10 – 25 % + input from team members	"Full project team": technical experts, 2-3 stakeholders, communications expert, HR expert 30% + input from team members
Build the change story **Change must make sense for all those who need to change**	Build a communication package + communications plan (messages, audience, media and timing) Simple language, simple message. "Money talks" – make the benefits clear	Light + build tailored messages for different stakeholder groups Do not forget the bosses of those who need to change	Medium + detailed communication plan built together with communications expert Check with corporate communications if change is so big you need to go public
What tools to use from the package:	• Elevator speech • Stakeholder analysis • Communications plan • Achieving sustained personal performance	LIGHT + • Risk assessment • Training plan • Involvement plan • Rewards plan • Building commitment	All tools

There are only a few change initiatives in the table determining the size and complexity of the change; the number of stakeholders, the clarity of change story to stakeholders, and the risk of reducing jobs.

The decision on the right level of change management activities is based on analysing the change challenge for understanding people. It refers to the effect of the change on individuals; if the change can potentially reduce jobs or it involves a big group of people, the change is more heavy than light.

UPM change management material defines a major change separately; a major change takes place when people shift their values, aspirations or behaviour. A major change usually means that:

- The cost of the change in case of failure is high
- The change requires high commitment from the employees
- There are significant shifts in strategies, processes, practices and systems

Change is considered a failure if it has not met its expected results. The cost of the change failing may not only be loss of money but also loss of key personnel, knowledge or data.

According to the UPM change management philosophy, change only happens when individuals change their behaviour (Changefirst Ltd, 2005, 2). This means that the key focus in all change initiatives must be in enabling individual employees to change and adapt to the new way of working. The UPM change framework approach is based on that assumption, and it does not give any guidance for instances in which change does not require any new ways of working.

2.6 Global Change Management and Cultural Aspects

One component of global change is the existence of multiple cultures. Culture is generally understood as the shared experiences of a group of people that are, among other factors, learned and transmitted through language, beliefs, values, practices, norms, symbols, and traditions. Cultures simply exist within human collectives. The term “collective” includes all kinds of groups composed of individuals from football clubs to corporate organisations or nation-states. During the case study project, it became obvious how important it is to understand cultural aspects when working in a global company, function or project. As a consequence, there is an emphasis on cultural aspects in this thesis.

Global leadership theory is concerned with the interaction of people and ideas among cultures rather than with either 1) the efficacy of particular leadership styles within the leader's home country or 2) with the comparison of leadership approaches among leaders from various countries. A fundamental distinction is that global leadership is neither domestic nor multi-domestic: it focuses on cross-cultural interaction rather than on either single-culture description or multi-country comparison. (Hickman 2010, 243).

A rather traditional approach to culture is coherence-oriented. It describes culture as something unifying which produces common characteristics shared by a significant number of the members of that culture. The dominant idea is that the culture itself is the homogenous (coherent) nature expressed in a group of human beings. The idea of the individual being a member of a single coherent culture in the complex age of globalisation and social differentiation is obviously untenable. Unlike the coherence-oriented definition of culture, other approaches choose to accentuate differentiation within a specific culture and embrace the fundamental contradictions present within them. Cultural differences are understood as a necessary element in the creation of an individual. (Rathje 2007, 260-261.)

Rathje (2007, 262) uses the term “multicollectivity” to help to understand the contradiction between individuality and the apparent integrity of large and complex collectives. The fact that individuals are a part of multiple collectives at the same time mitigates differences while fostering a network-like stability. It is rather the establishment of normality than generally agreed-upon norms or values that gives cultures their cohesion. The obvious cohesion of cultures is not the result of their coherence, but rather their familiarity and the “normality” of their internal differentiation.

Figure 6 compares the cohesion-based concept of culture with the traditional coherence-oriented view of culture.

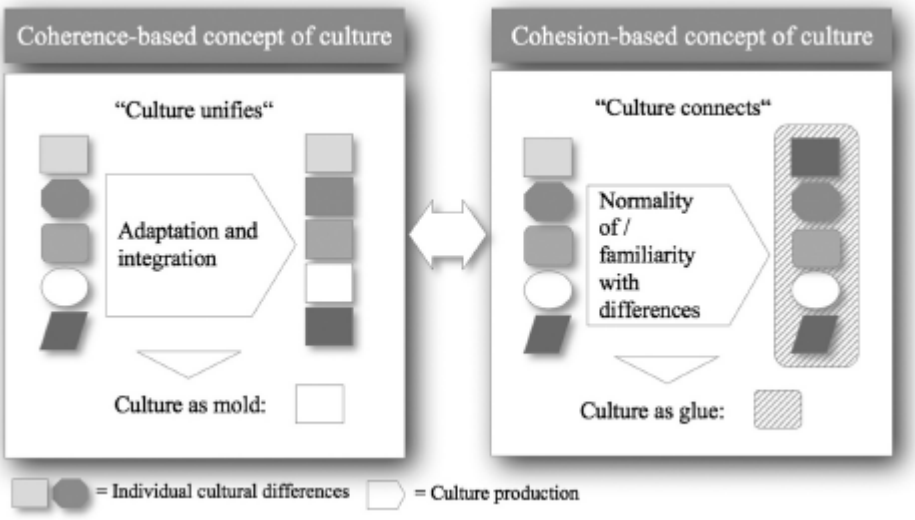

Figure 6. Coherence-based versus Cohesion-based Concept of Culture (Rathje 2007, 263)

Cultural competence helps to create an effective work environment in cross-cultural situations. Becoming culturally competent is a developmental process, in which three common factors leading to an increase in the level of the practitioner's cultural competence can be identified: **personal attributes, knowledge, and skills**. Assessing knowledge is only a small part of what is involved. What also needs to be assessed is an individual's ability to step outside his or her cultural boundary, to make the strange familiar and the familiar strange, and to act on that change of perspective. (Johnson, Lenartowicz, Apud 2006, 529.)

According to Rathje (2007, 262), intercultural competence should be understood as the ability to bring about the missing normality and therefore create cohesion in the situation. Intercultural competence must be seen as the ability to transform a fleeting "interculture" characterised by uncertainty into an actual "culture" in which cohesion is established through normality. The outcome of intercultural competence is culture itself. If culture is consistently understood as a characteristic of all forms of collectives, it also applies to the cohesion between individuals from different cultures that are able to create familiarity between them, adding another collective to their individual set of group memberships (See Figure 7).

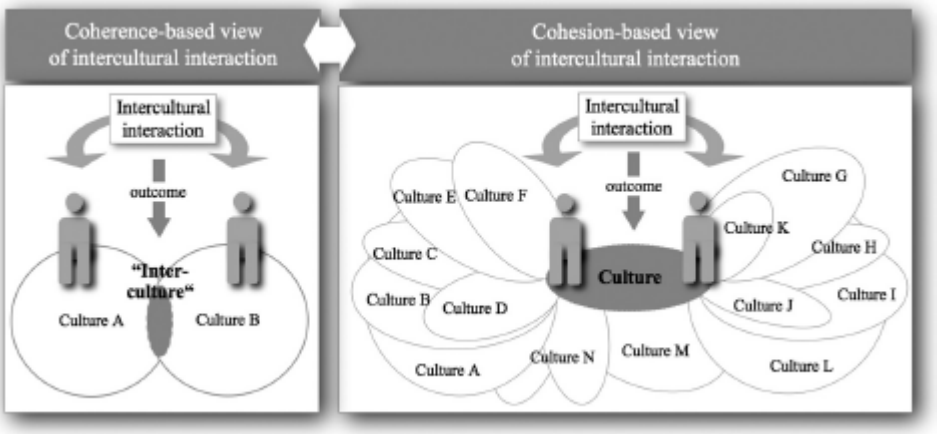

Figure 7. Coherence-based versus Cohesion-based View of Intercultural Interaction (Rathje 2007, 264)

Johnson, Lenartowicz and Apud (2006, 530) propose the following definition of cross-cultural competence for the international business field: cross-cultural competence in international business is an individual's effectiveness in drawing upon a set of knowledge, skills, and personal attributes in order to work successfully with people from different national cultural backgrounds at home or abroad. Cross-cultural competence is the result of behavioural adaptation that individuals undertake in order to interact effectively with people from different cultures, whether that interaction takes place in an individual's home culture or as often is the case in international business, in an alien culture.

Binder (2007, 42) has presented a four-step framework for effective cross-cultural project management which is also feasible in global change management:

1. **Learn** the definition and different types of culture.

2. **Understand** the cultural differences.

3. **Respect** the cultural differences.

4. **Enjoy** the richness of a multi-cultural team.

Cultural differences exist across countries, but are also influenced by a diversity of ages, gender, regions, religions, and many other types of social groups. Differences should be kept in mind when confronting individuals with opposite views of the

world. They should be accepted and respected. An awareness of the differences may help to identify and mitigate risks. Furthermore, it may help to find alternative approaches, to achieve the project objectives in better ways, and to increase the level of innovation and the quality of the project deliverables.

The knowledge component of cultural competence has been of particular interest to business educators and researchers. The knowledge dimension includes specific and general knowledge, knowledge about culture, knowledge of language, and knowledge about the rules of interaction. (Johnson, Lenartowicz, Apud 2006, 530.)

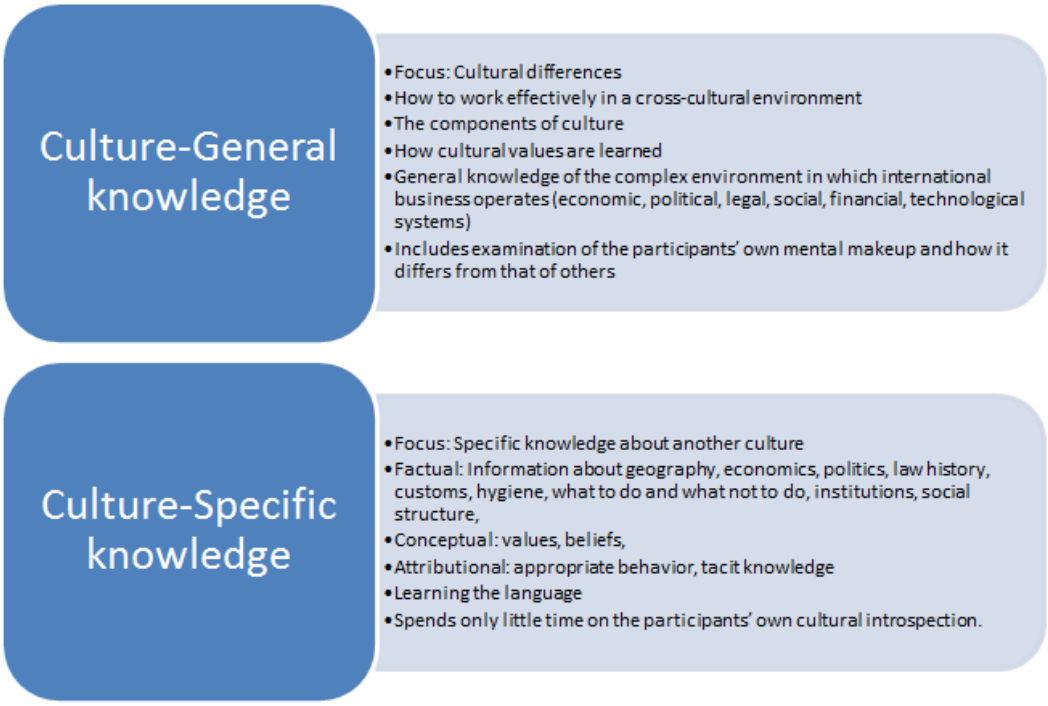

Figure 8. Two Different Types of Cultural Knowledge: Culture-general and Culture-specific

Johnson, Lenartowicz and Apud (2006, 530) refer to Hofstede's (2001) two different types of cultural knowledge (Figure 8). Culture-general knowledge focuses on awareness and knowledge of cultural differences. It applies to any cultural environment as it deals less with how to live in any specific culture and instead focuses on how to work effectively in a cross-cultural environment. Culture-specific knowledge focuses on specific knowledge about another culture. It includes attributional knowledge, which is a type of tacit knowledge. It is informal, personal, and difficult to communicate and thus difficult to convey in a formal environment, such as a classroom-based training program.

Cross-cultural training programs tend to emphasise the three elements of cultural competence (the knowledge, skills and personal attributes) which can be taught in short training programs, typically focusing on culture-specific behavioural skills and knowledge whose learning can easily be assessed, at the expense of culture-general knowledge and attributional knowledge that might enhance the trainees' metacognitive skills. (Johnson, Lenartowicz, Apud 2006, 539.)

Conceptual taxonomies are useful for understanding cultural differences. Geert Hofstede (2001, 29) has identified five main dimensions on which country cultures vary: power distance; uncertainty avoidance; individualism versus collectivism; masculinity versus femininity; and long-term versus short-term orientation. The individualism-collectivism dimension describes the degree to which a culture relies on and has allegiance to the self or the group. The uncertainty avoidance dimension describes the extent to which cultures prefer and can tolerate ambiguity and change. The power distance dimension assesses the degree to which the culture believes that institutional power should be distributed equally or unequally. The masculinity-femininity dimension indicates the degree to which a culture values assertiveness and the acquisition of wealth or caring for others and the quality of life. The time-orientation dimension refers to long-term versus short-term orientation toward life and work.

Another taxonomy was developed by Edward Hall, who noted that cultures differ in the extent to which their primary message patterns are high context or low context. High-context cultures prefer messages in which most of the meaning is either implied by the physical setting or is presumed to be part of the individual's internalised beliefs, values, norms, and social practices. Low-context cultures prefer messages in which the information is contained within the explicit code. (Lustig and Koester, 2005, 134.)

High-context Cultures	Low-context Cultures
Covert and implicit	Overt and explicit
Messages internalized	Messages plainly coded
Much nonverbal coding	Details verbalized
Reactions reserved	Reactions on the surface
Distinct ingroups and outgroups	Flexible ingroups and outgroups
Strong interpersonal bonds	Fragile interpersonal bonds
Commitment high	Commitment low
Time open and flexible	Time highly organized

Figure 9. Cultural Taxonomies by Edward Hall

3 SISU PROJECT

3.1 UPM

UPM is one of the leading forest products companies in the world. It comprises three Business Groups: Energy and pulp, Paper, and Engineering materials. In 2009, UPM's sales totalled € 7.7 billion. UPM has production plants in 15 countries, and it employs approximately 23 000 people worldwide.

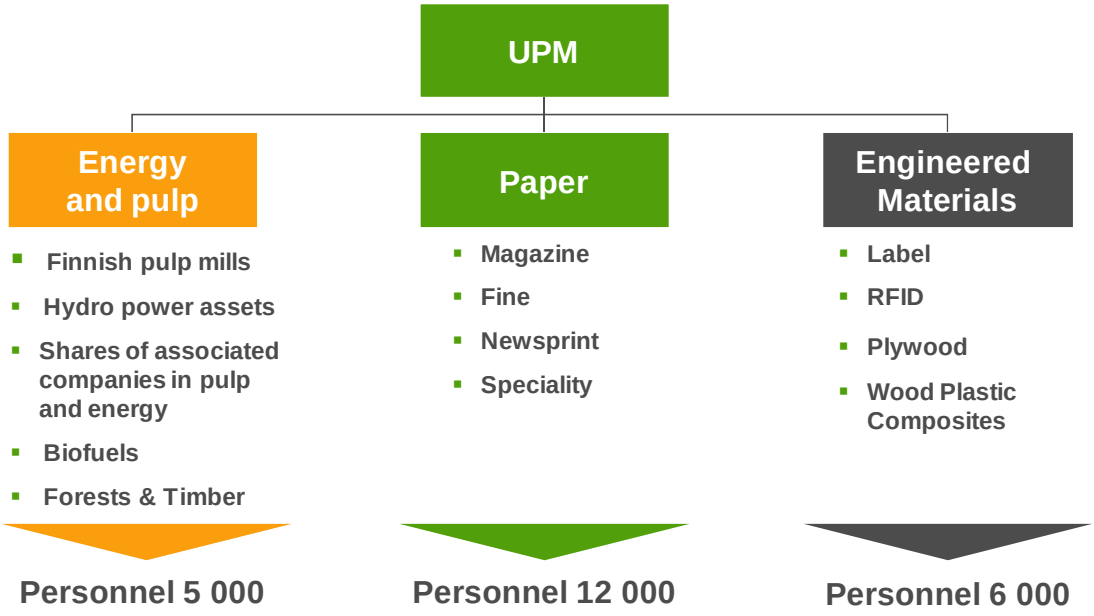

Figure 10. UPM Organisational Structure Comprises Three Business Groups

UPM IT is a global function with more than 500 experts in 15 countries in 55 locations. Figure 11 below shows where the IT personnel was located in October 2009.

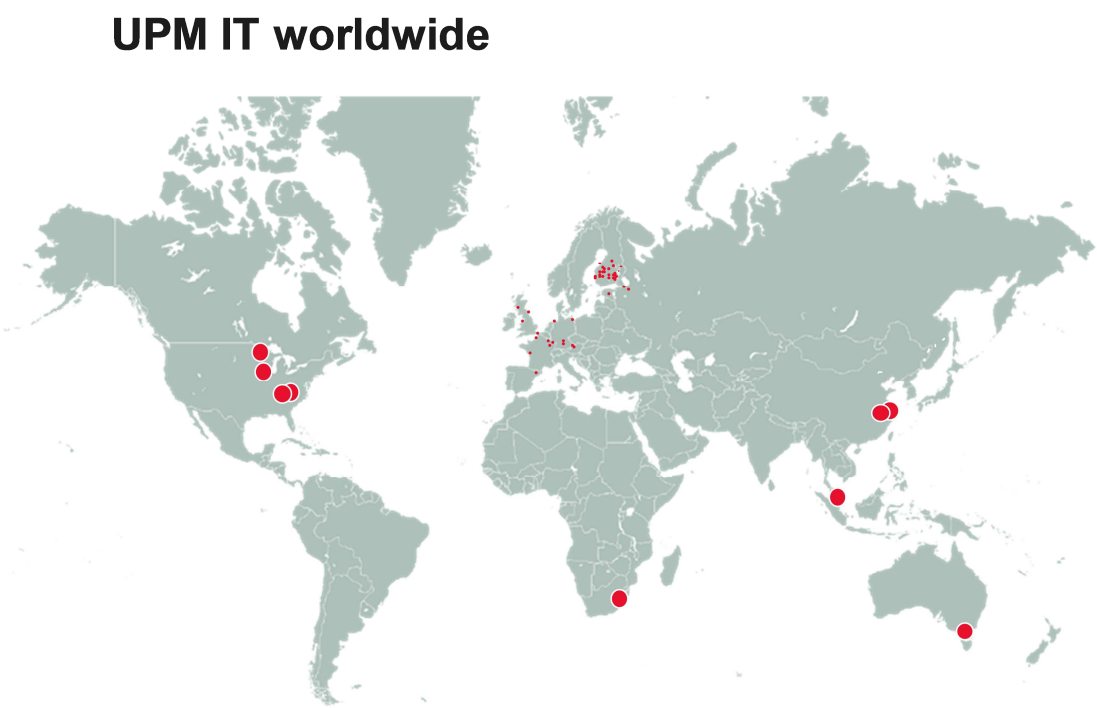

Figure 11. UPM IT-locations in October 2009

UPM has a matrix organisation. Figure 12 illustrates how the IT-management organisation is integrated with UPM's Business Groups.

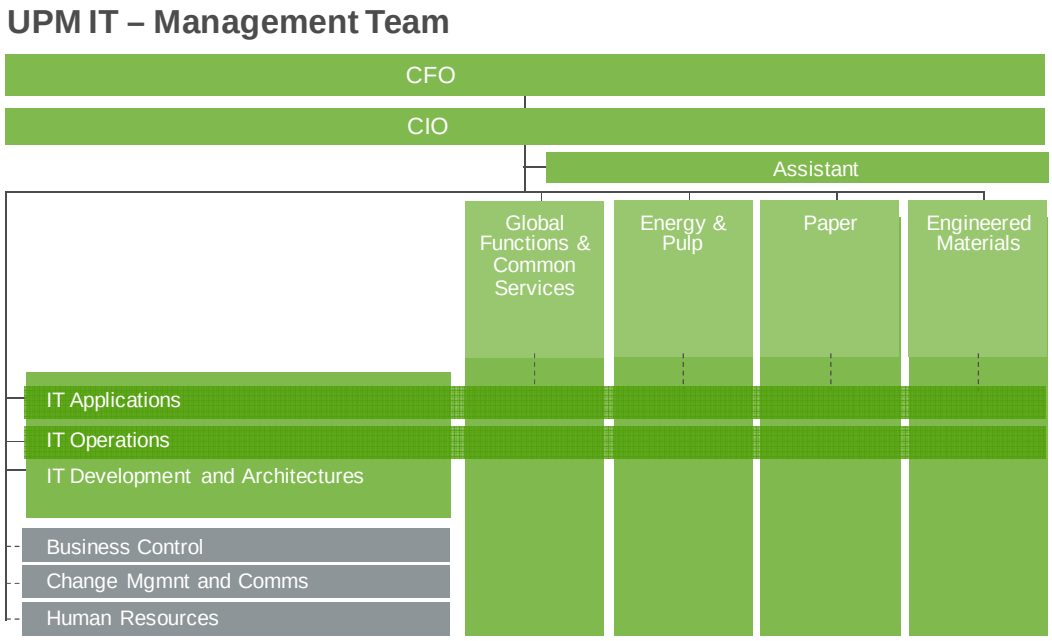

Figure 12. IT-organisation Chart in October 2010

In a company of this size, there are naturally a multitude of projects going on all the time (see Figure 13). Some projects are asset investment projects related to efficiency, growth and cost savings. Other projects focus on, for example, improving product features, innovations, and problem solving. The third project type is business/IT projects, which are typically related to business process changes the impact of which in most cases is cross organisational. In addition, there are, of course, other projects of various sizes within a certain business group or function.

Project type	Characteristics
Business / IT projects  	• Typically related to Business process changes • In most cases impact is cross organisational • Requires strong change management efforts • Challenges are related to cost and budget estimations • Examples: Global 1, GMES, UPM Workspace
Asset Investment projects  	• Typically related to efficiency, growth and cost savings • Investment impact to one location • Planning phase can last several years • Challenges are related to supplier management • Examples: Paper machine building, Power plant building etc..
RTD projects  	• Focused on improving product features, innovations, problem-solving etc.. • Project scope narrow, focused on details •Examples; New product developments, long term research
Other projects 	•All other projects of various sizes, within a certain business group or function •Examples: Company reorganisations, improvement programmes, projects in sales & marketing, supply chain, manufacturing or supporting functions

Figure 13. UPM Project Types

3.2 Sell *it* SAP Upgrade Project (SISU) in UPM

Sell *it* SAP upgrade project (SISU) was initiated at UPM in May 2009 and lasted until April 2010. The SISU project was a Business and IT project. Sell *it* is UPM Paper Business Group's critical sales transactions application, and a key component of the supply chain solutions. It is highly integrated with other systems, and it is used in customer related critical processes. 2100 orders are handled per business day and there are 1060 users around the world (see Figure 14).

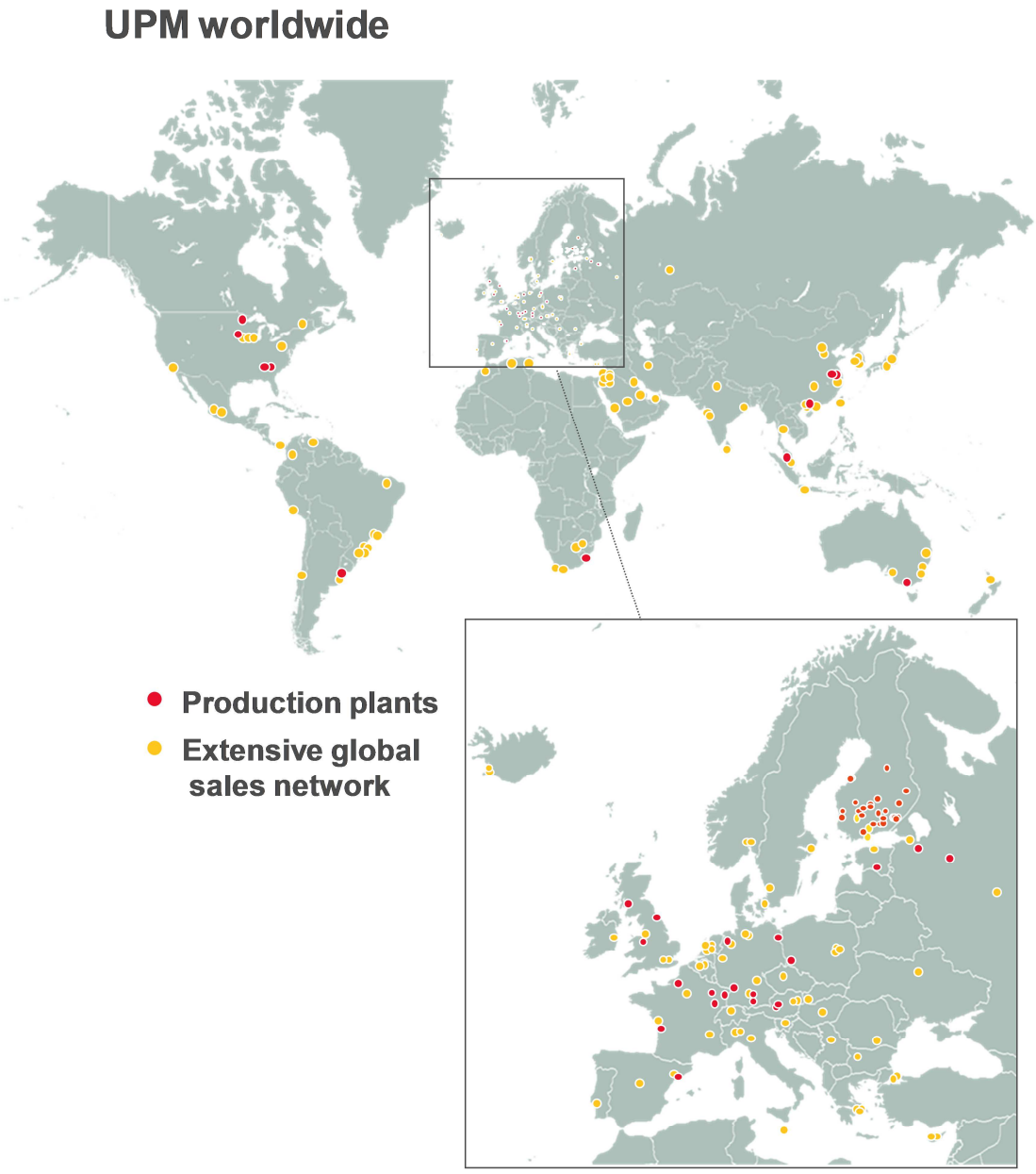

Figure 14. UPM Production and Sales Network

UPM has 58 production plants in 15 countries. There are 47 plants in Europe, 26 of which are in Finland. The production plants outside Europe are located as follows: 4 in the USA, 1 in Uruguay, 3 in China, 1 in Australia, 1 in Malaysia, and 1in South Africa. Most of the Sell *it* users are in sales offices, the locations of which are marked in yellow in Figure 14.

3.2.1 The Rationale for the SISU Project

In order to reduce operational risks, run on a well maintained IT platform and build the basis for future supply chain developments, the SAP software used in Sell *it* was upgraded from version 4.6B to version 6.0. The SISU project was established to perform this technical software upgrade.

The Sell *it* platform was ageing and business risks were increasing. Any possible crisis would have been more difficult and lengthy to solve. There was an increasing risk to have an incident where part of the business data could never be recovered. The application was stagnating and it was more and more isolated. Regular interface failures occurred due to incompatibilities with SAP 6.0.

The hardware leasing contract for version 4.6B was ending in September 2008 (see Figure 15) and the hardware maintenance by Siemens/HP was getting more difficult to acquire. The database maintenance by Oracle was not standard anymore, which made it expensive. The ageing SAP version maintenance was already in a customer specific mode, which meant that SAP only provided fatal bug fixing with no time commitment. There was no support package, performance fix, legal fix, nor database fix.

The upgrade to 6.0 provides a solid and modern platform on which to develop any new business requirements. A fully Unicode supply chain ensures proper customer data in all countries. The new version ensures application stability and adequate performance for several years. The application will be properly maintained at least until 2016 (see Figure 15).

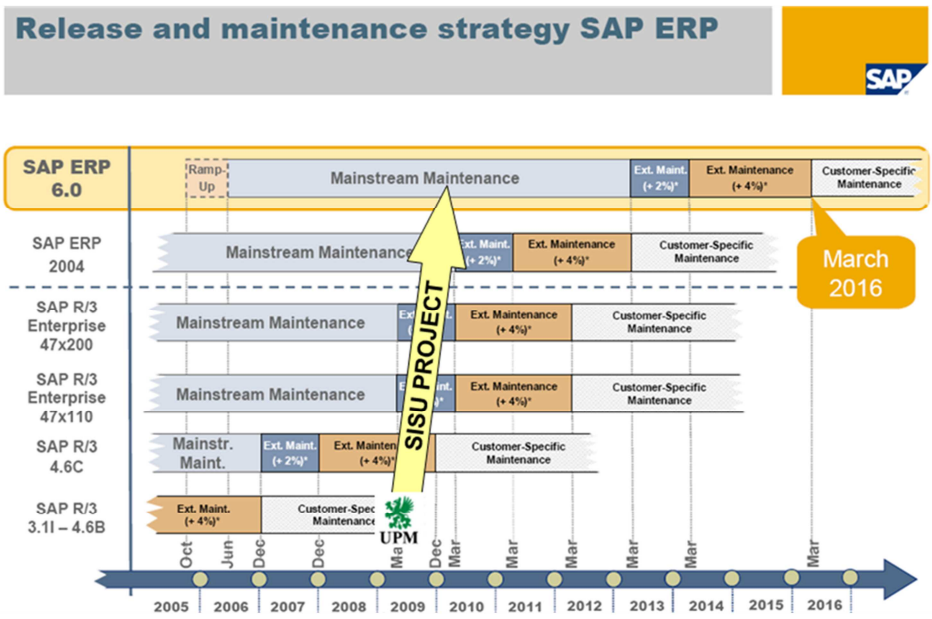

Figure 15.

3.2.2 Complexity of the SISU Project

Even though SISU as such did not bring new functionality to the end users, the project was a very extensive and complex IT project. The upgrade from version 4.6B directly to version 6.0 made it technically very complex (described in the Figure 15). In addition there were other aspects which made the SISU project very challenging.

SISU was a multi-vendor project. The main partner selected to support UPM was Accenture. Tieto, Siemens, IBM, SAP, HP and Oracle were also involved, each in their own area of expertise. The project office was in Helsinki in the UPM premises.

The project was also global; there were members from 10 different suppliers and 11 nationalities. The different companies and nationalities involved in the project created a unique project feature where working cultures inherently mixed.

3.2.3 Change Impact for Stakeholders

In the case of the SISU project, the technological change was very complex, big and challenging, but the change effect for the end users was minor. The software upgrade did not bring any new functionality, only a new look and feel. Figure 16 shows an overview of an order form in version 4.6, and Figure 17 presents the same view in version 6.0.

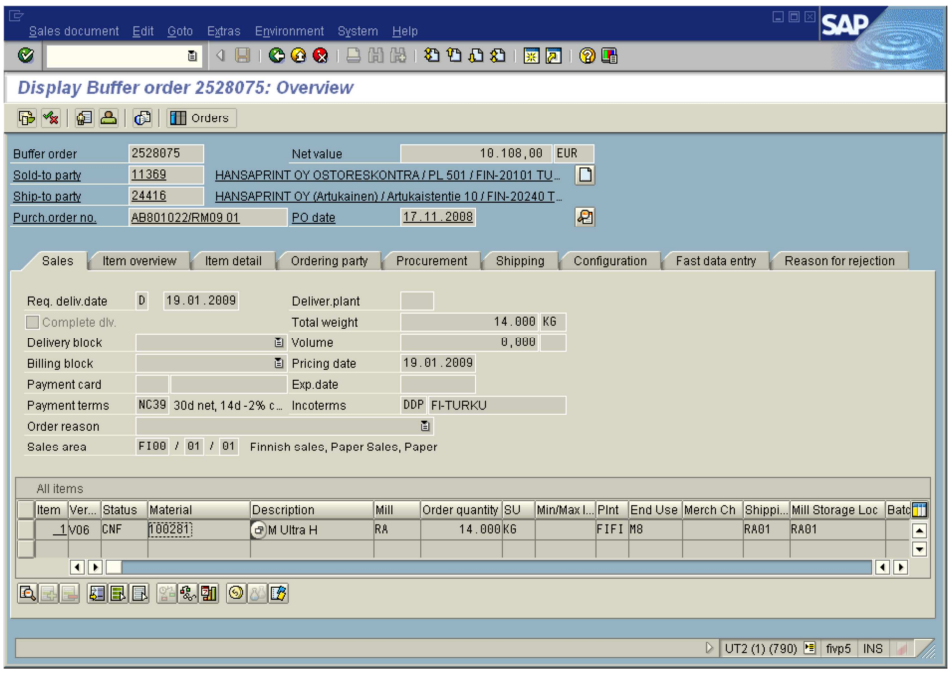

Figure 16. Version 4.6B

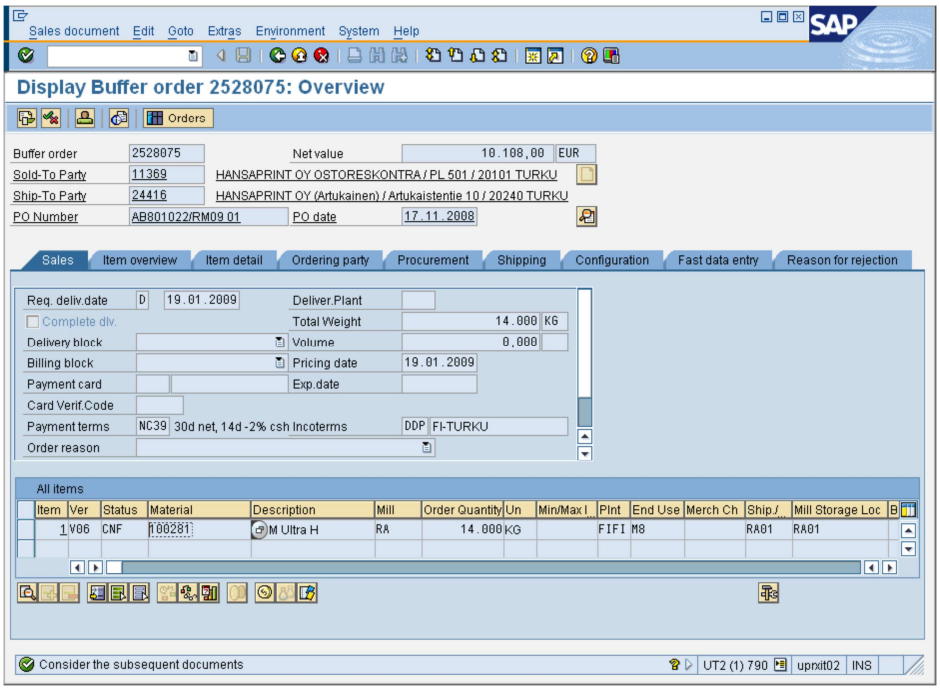

Figure 17. Version 6.0

The upgrade go-live was a three week process. During the first weekend, there was a 24 hour break for upgrading the Oracle database. During the following two and a half weeks, Sell *it* functioned normally except for some observable slowdowns that were due to the upgrade processes running in the background. At the end of the three week process, all Sell *it* services were down, cut-off from the other systems and unavailable to all the users from Thursday evening until Monday morning. On Monday morning,

the new system was ready and available for the users. All business regions were responsible for making their own business continuity plans for the go-live period and for ensuring that there were enough resources available for the preparation work and during the go-live period. The project team arranged preparation meetings and supported business units in planning the needed activities before the go-live to ensure as smooth a go-live as possible from the business service point of view.

The customers were informed that UPM was performing a technical upgrade of the sales application in order to build a new solid modern platform which would support the needs of UPM's supply chain and that during the upgrade process, the Sales application system would not be available from Thursday to Monday. They were also explained that during the upgrade, no new order entries or amendments could be entered and that Pro forma invoices for customs clearance purposes would not be available during that time.

The upgrade project had an impact on IT not only during the project but also after the project. Of course, the IT line organisation needed to understand what had been done and what had changed in order to continue supporting the business unit needs. The task handover was arranged and all the needed information was transferred from the project organisation to the IT line organisation.

3.3 Change Management Approach in SISU

Usually, a major change takes place when people shift their values, aspirations or behaviour. The SISU project was considered a major change even though it did not cause significant shifts in values, aspirations or behaviour. It was considered a major change because the cost of the change failing would have been high and there were significant technical shifts in the system.

Change management can be classified as light, medium or heavy (see Table 1). It is not simple to scale the UPM change framework for the SISU project according to the table. The UPM change framework recommends analysing the change challenge by understanding people. In the SISU project, the change did not reduce jobs and the final effect for people was only going to be minor. It could thus be classified as medium change. The change story was not evident to all the stakeholders either. On the other hand, the stakeholder group was very big and heterogeneous. The heavy change man-

agement activities and heavy tool kit were chosen because the change was technically very complex and challenging, the cost of the change in case of failure would have been high, and because the stakeholder group was very big and heterogeneous. For these reasons, a full project team was established.

It was decided that the change management activities would focus on communication, because the disturbance for people's daily work was quite low and therefore the resistance to change was predicted to be low, too. Resistance is usually inevitable for any major change but well planned communication can lessen the impact and help people to feel positive about the change. If communication is executed well, it can even create initial excitement and real interest in the change.

3.4 Surveys

A communication survey was conducted three times during the project. The purpose was to get feedback from the stakeholders and, based on the results, to arrange corrective actions when necessary.

1. October 2009	63 % answered (154/244)
2. January 2010	53 % answered (138/260)
3. March 2010	37 % answered (110/294)

All three surveys had the same set of generic questions. The second and third survey also included some additional questions. The first survey was sent to the core group of stakeholders. The second survey was sent to the same group of stakeholders plus key users and testers. The third survey was sent to the same group as the previous survey and, in addition, to all end users.

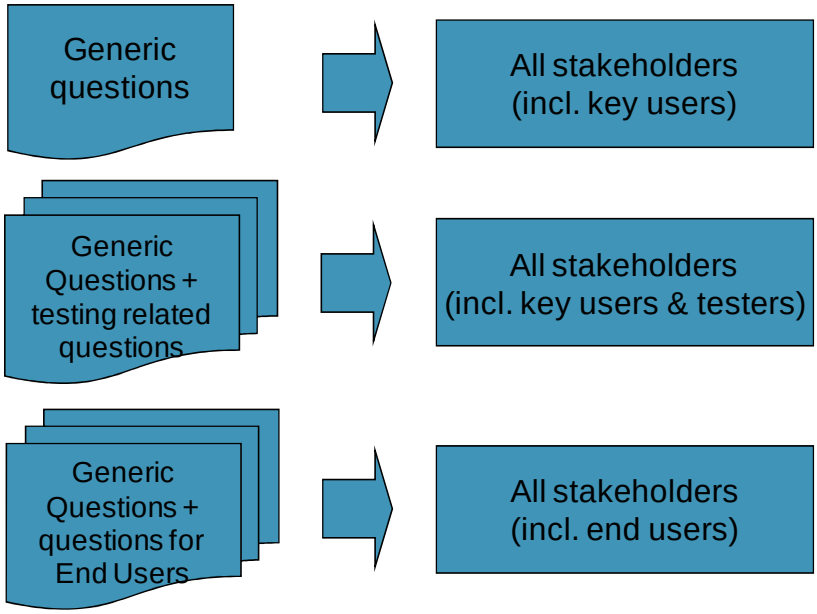

Figure 18. Structure of Surveys During the SISU Project

Stakeholders were from different functions, mostly from business. The share of representatives may be seen in Figure 19.

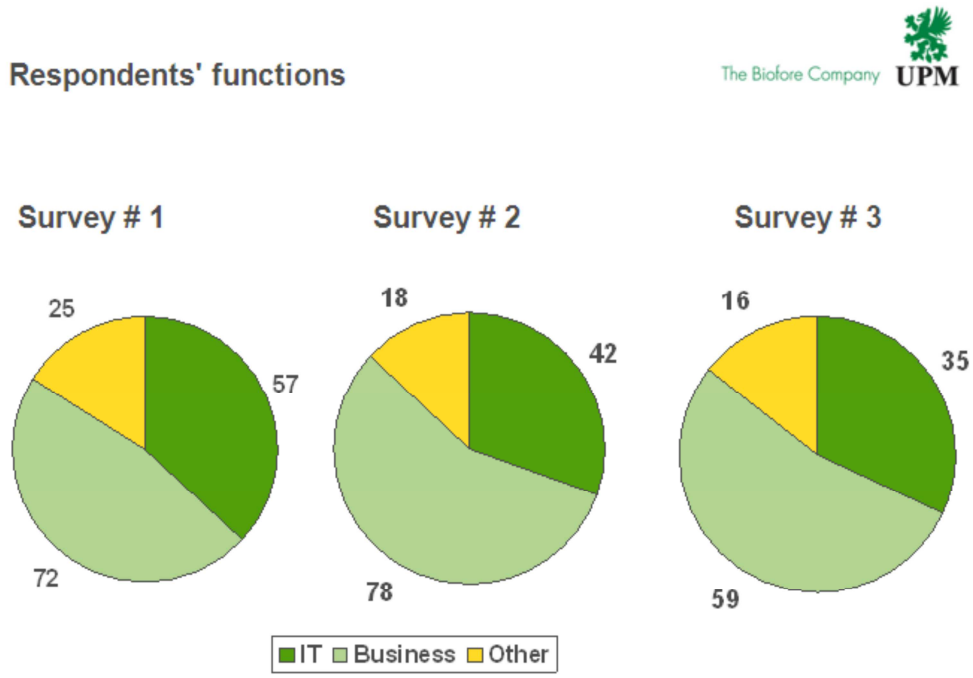

Figure 19.

The survey emphasised communication as it was decided that the SISU change management activities concentrate mostly on communication. The generic questions were as follows:

1. I have received or searched information relating to the SISU project from the following channels: Intranet, SISU bulletin, info session, meeting arranged by the SISU project team, colleagues, specify other if used.
2. The communication regarding the SISU project has been clear and understandable.
3. I understand why Sell *it* upgrade has been done.
4. I have received a sufficient amount of information to understand how the SAP upgrade affects my work.
5. I have received information about the SISU project at the right time.
6. I have a channel to provide feedback about the SISU project (e.g. through a SISU project team member).
7. I am satisfied with the SISU communications activities (during the whole project lifecycle).

The scale for questions 2-7 was 1=Completely disagree, 2=Disagree, 3=Slightly disagree, 4=Slightly agree, 5=Agree, 6=Completely agree

3.4.1 Testers' Role

Overall during the 10-week period, over 50 experienced business users went through over 500 business scenarios several times. This was to ensure that Sell *it* on the SAP 6.0 system would meet the same functional, technical and quality requirements as on the 4.6B system. The business testers were located all over the world. 12 of them came to the Helsinki project office while the rest tested remotely.

3.4.2 Key Users' Role

Key users had an essential role in the project as they trained and informed the end users. The project team only trained the key users, and most of the communication was directed to the key users.

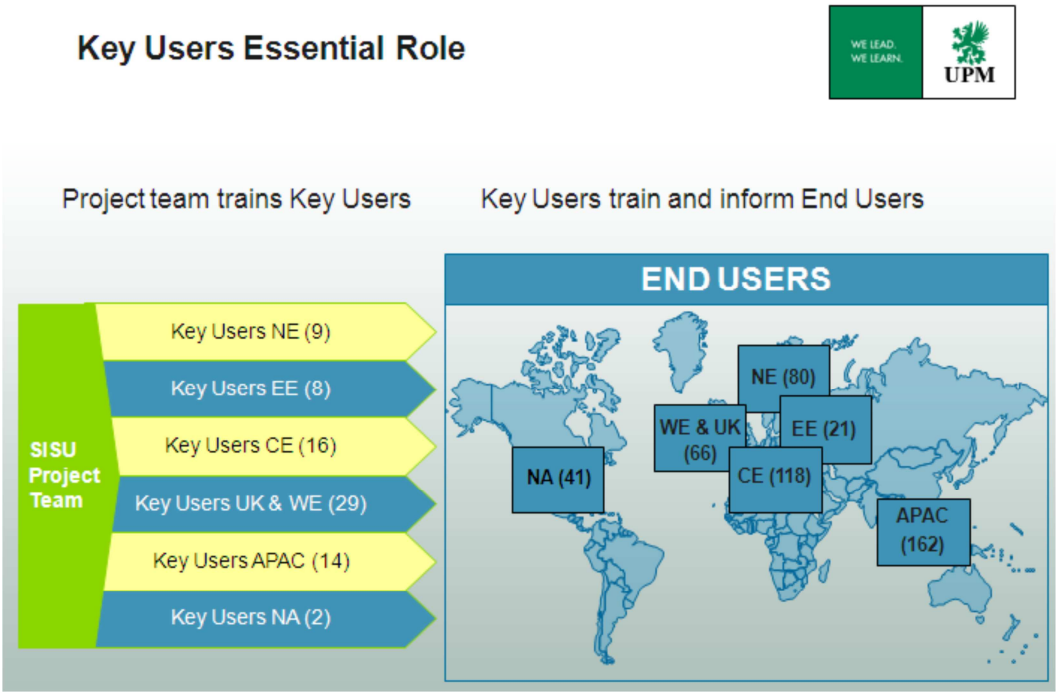

Figure 20. Amount of Key Users and End Users and Their Roles

3.4.3 Survey Results

A specific level of commitment must be built for any change to be successful. People have been found to develop or escalate commitment in the following way:

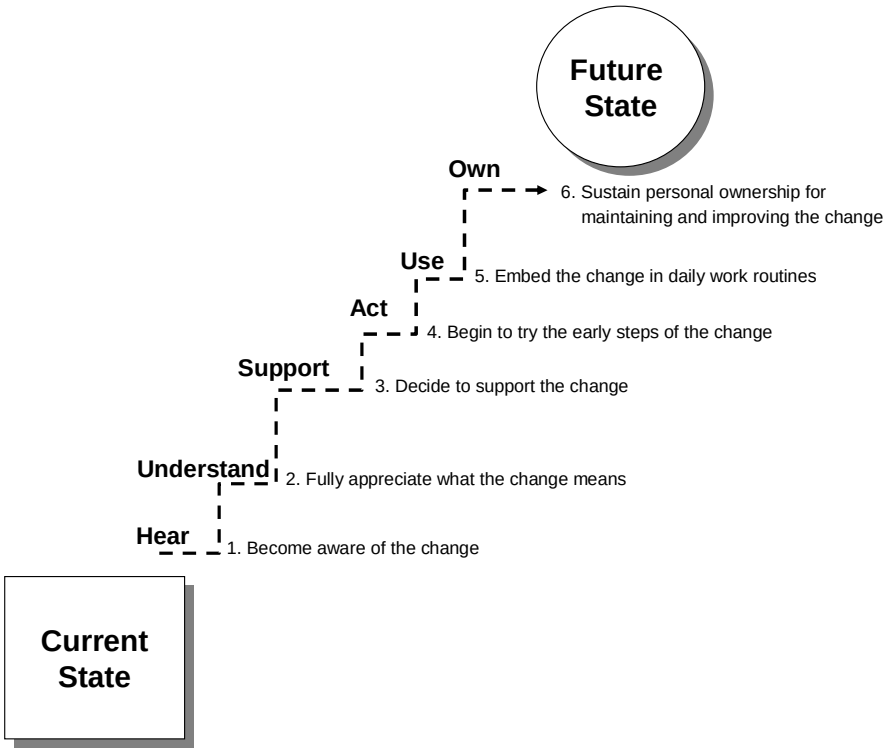

Figure 21. Building Commitment

When the first survey was executed, people were in the "hear" stage (see Figure 21). They had heard about the project and why the upgrade was done, but some of them felt that they had not received a sufficient amount of information to understand how the upgrade would affect their work. Communication activities increased during the project life-cycle and survey results got better in relation to the increase. During the second survey, people were more in the understanding and supporting phases. There was still deviance in most of the questions as communication was targeted to the core stakeholders only. The idea was not to communicate yet to those who are not affected, but that decision probably left space for uncertainty as to whether the change would affect those who were not included in the communication at that stage. The third survey was executed in the end of the project when the upgrade was done and the new version had been in use for a while. In the last survey, the results were very good and the average answer in the scale of 1 to 6 was 5 or more in every question. A summary of the results of the generic questions 2-7 can be seen in Figure 22.

The results of each survey were very good considering the phase during which they were carried. The change management activities towards the stakeholders were appropriate. There was enough communication to engage the stakeholders in the change.

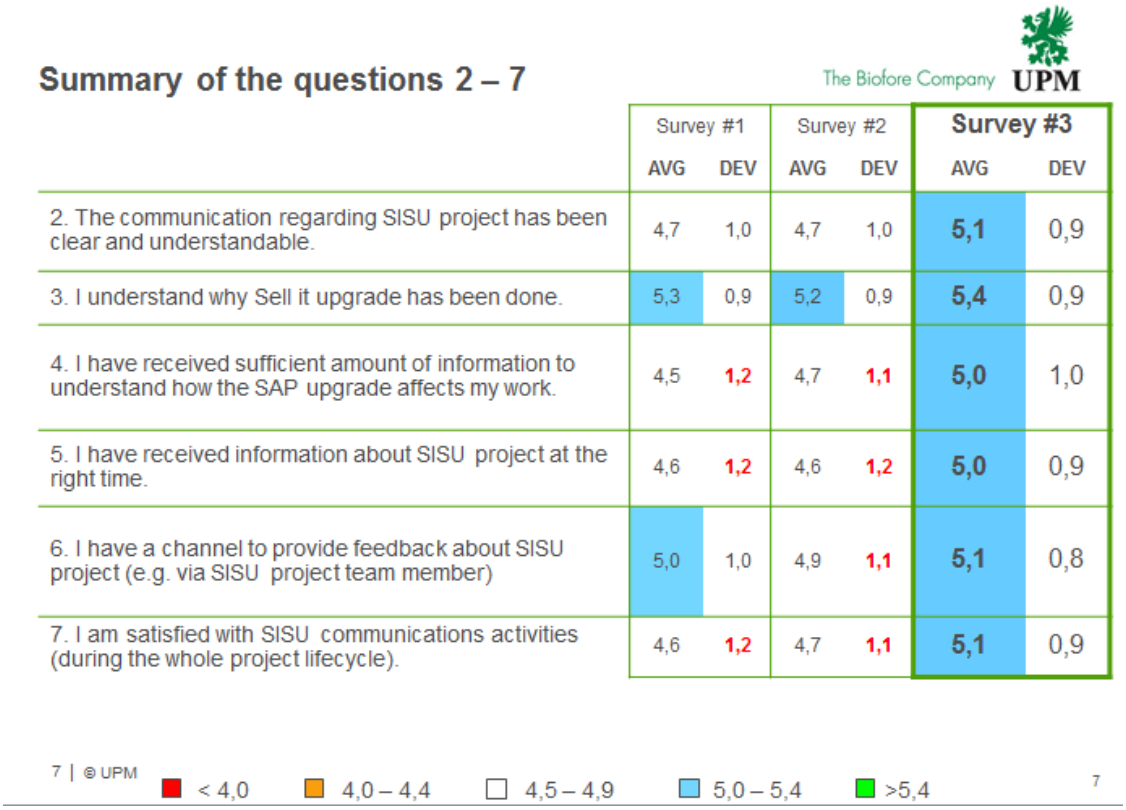

Figure 22. Results of Generic Questions 2-7

The additional questions in the second survey were for the testers only. The questions were about the testing arrangements, training, testing tools and the support provided. The additional questions in the third survey were for everyone. They were related to the go-live and hyper-care period, which was the period after the go-live during which the end users received special support.

3.5 Interviews

In addition to the three surveys, 18 testers were interviewed by phone. They were asked if the communication had been clear and understandable; what was good and what could have been done better. They were also asked if they were satisfied with the communication activities and whether they had received a sufficient amount of information at the right time to understand how the change would affect their work. The interviews were conducted in the form of informal structured discussions. All feedback was welcome and the themes varied according to the discussion.

Cultural differences between the testers were clearly visible in many aspects. For example, some testers complained that they had difficulties with finding the time for the

testing. In some other regions, it was a part of the working culture that the persons involved in the testing were 'excused' from their daily work and they were able to concentrate on the testing only. As a result, communication to the testers' managers was increased. It was emphasised that if they had given the resource for the testing, they also had to ensure that the tester had the opportunity to fulfil the role.

The IT personnel was satisfied with the tool used for the testing and did not have any complaints related to the testing. Most probably that was also a result of a cultural distinction; IT persons tend to feel comfortable using new tools and perhaps they are more used to working on projects, too.

The orientation to time and deadlines was another good example of cultural differences. The testers' reactions followed Edward Hall's description of cultural taxonomies. People from low-context cultures were very time oriented and they completed the requested testing tasks within the given timetable. However, people from high-context cultures were time-open and flexible. They often completed the given tasks late and mostly without any explanation, which gave the impression that it was not so important for them to stay on schedule.

During the discussions, it was sometimes difficult to get an overt opinion as there were coded messages and reserved reactions. When asked, the interviewees expressed their contentment with everything, but negative comments might then come out in an indirect way.

3.6 Lessons Learned in the SISU Project

The SISU project team had a workshop concerning the lessons learned at the end of the project. Each stream introduced what their core mission and scope in the project had been, what challenges they had had and what achievements they were content with.

The main scope of the change management in the SISU project was to

- identify the change management and the communication stakeholders and analyse the need for commitment creation in different phases of the project

- select the suitable communication channels and change initiatives to execute the change

- create a change management and communications plan to support the overall project

- create communication material and execute the planned activities

It was challenging to combine the communication content requirements of the target group, the business stream and the project management group. The management often wanted very detailed technical communication while the business stream required very simple end user-friendly communication without technical details. Moreover, the role of the target group had an effect on the communication content; for example on whether the emphasis was on financial aspect or the IT aspect. The fact that the change management was a separate stream from the business and training stream also proved challenging. The two streams and change management should have very close co-operation, preferably working in the same stream.

4 CRITICAL EVALUATION OF THE UPM CHANGE FRAMEWORK

4.1 Change Classification in the UPM Change Framework

As mentioned in the section 2.4, there are many factors and considerations that must be taken into account prior to selecting a change management methodology. One approach is Paton & McCalman's view where change classification is associated with six key factors. The UPM change framework divides changes to two extreme types by considering the following five elements: main purpose, leadership approach, focus, planning and motivation (Figure 23).

	Type 1	Type 2
Main Purpose	Maximize Economic Value Assumption - Singular focus on EVA (shareholders) will contribute to long term good of all stakeholders.	Develop Organisational Capabilities Assumption – create a work system where employees are emotionally committed – economic value will follow.
Leadership Approach	Top Down Assumption – the generals know the full state of the battlefield and know best - also viewed as making most sense in a crisis situation.	Participative Assumption – barriers to achieving top management's goals are not likely to be communicated upwards – involvement, leading to partnership, trust and commitment is vital in the long term.
Focus	Structure, Processes and Systems Assumption - focus on organizational "hardware" to leverage change.	Mindset or Culture Assumption – focus on values and behavior to leverage deep change.
Planning	Engineered Assumption – well-choreographed plan of change is more likely to yield results than spontaneity and emergence.	Emergent Assumption – local experimentation and learning leads to meaningful change. Change cannot be controlled centrally.
Motivation	Tangible Incentives Assumption – without substantial incentives why would anyone take on the job of leading or driving for economic improvement. (Extrinsic Incentives)	Non Tangible Rewards Assumption – people are motivated by the way management treats people and how they involve them in the key questions the organisation must respond to. (Intrinsic Rewards)

Figure 23. The Underlying Assumptions Underpinning the Range of Situations

In the UPM change framework, all the most common change techniques (such as stakeholder analysis, planned communication, training planning, reward planning, addressing resistance to change etc.) are mentioned as type 1 changes. Techniques for type 2 changes were expressed to be too difficult to transfer through training and the related material. This does not give many options for the person responsible for the change management; either the change is classified as type 1 and the framework should be attempted to scale accordingly, or the change is classified as type 2 and support from the UPM HRD/Organizational development should be asked.

4.2 Measurement of Change in UPM

Change challenge should be analysed in order to choose the right change management tool set. Heavier change requires a heavier tool kit.

The UPM change framework uses the following aspects to measure change:

- The cost of the change in case of failure
- The need of high commitment from the employees
- Significant shifts in strategies, processes, practices and systems
- Reduction of jobs
- The amount of stakeholders

UPM change management material contains several templates for assessments and planning, but it does not include a simple template for measuring change. Choosing the right change management tools is based on assessing the change against the light, medium and heavy definitions (Table 1). I found the scaling of the framework very difficult. In the case study, change was partly light, partly medium and partly heavy – so which tools should be chosen?

Faced with this reality and based on the material covered in this thesis, other literature and my own experiences, I have created a change measurement template which could be added to the UPM change management tools (see attachment 1). The purpose of the template is to help persons responsible for planning change management evaluate, in the beginning, how comprehensive change management activities are needed for implementing the change. Included in the template are several factors that help to assess the change.

4.3 Deficiencies in the UPM Change Framework

The UPM change management material completely ignores two significant areas: Cultural aspects and change management activities within the change implementation team.

After the case study experience, I conclude **that the more work is needed to achieve the change, the more internal change management is needed within the change implementation team.** The only sentence referring to this in passing in the UPM change management material, is in Table 1; “Do not forget the bosses of those who need to change”. But the bosses are not the only group to remember and they are not necessarily part of the core change implementation team. When assessing the stakeholders it is important to include those who implement the change.

In the UPM change management material, it is mentioned that working in a global matrix makes change implementation much more complex than it is in a simple line organisation, and that all change initiatives should have as much involvement and cooperation as possible. However, there are no reasons to **why** it makes implementation more complex nor any examples as to **how** it makes it more complex, or how to facilitate the implementation.

The more I read about change management, the more I understood how everything in change concerns people. For example, Carnall's (see Figure 3, page 13) necessary conditions for effective change (awareness, capability and inclusion) are all related to people. Therefore, culture is incorporated in every aspect of the change spectrum as people are always combinations of cultures. It should be kept in mind that culture is much more than just nationality. Even within one family there are persons with different role expectations because of their different backgrounds. Culture is the glue which connects the family members. They are still individuals with differences.

During the case study process I realised how big an effect cultural aspects have for effective change and yet, the UPM change management material does not include a word about different cultures. At minimum, it should include a summary of cultural aspects as well as guidelines on how to adapt communication and other change management activities to different cultures. As a matter of fact, each new employee should get basic training concerning different cultures when they start working in a global company. I have worked for UPM for more than 15 years, and I have never seen any guidance or advice about working in a multicultural organisation.

UPM has a two-day internal *Change Expert* training and a one-day *Leading people through change* training, but neither of these courses include anything about facilitating change within different cultures. Especially in the *Leading people through change* training the approach is so local that it does not give any tools for global functions and global changes. Cultural aspects should be included in the training.

5 EVALUATION OF THE DEVELOPMENT PROCESS

5.1 Change Classification in SISU

Analysing the nature of change in the SISU project in relation to Paton & McCalman's (2008, 18) six key factors, it can be concluded that the chosen change management methodology was correct.

The project sponsor and the project owner were both from the business organisation the personnel of which were mostly affected by the change. That circumstance created a positive feeling of ownership and promoted successful change. Therefore, I would

say that the first key factor, *the selection and role of the problem owner*, was managed well.

The actual change was more technical in nature, but because a large group of the end users was affected, the change was also very people related. When *locating change on the change spectrum* (the second key factor) it is important to recognise all stakeholders, also within the change executors. The SISU project change was considered almost solely a technical upgrade and therefore, it was predicted that the reaction to the change would not be very negative.

By considering the SISU change in relation to the *TROPICS* factors it can be concluded that the nature of the change could be defined as "hard", which refers to a systems-based and mechanistic solution methodology. The time scales and resources were clearly defined, objectives were quantifiable, perceptions were mostly shared by those affected, interest was well defined and quite limited, and control was within the managing group. The source was the only factor that gave the opposite result ("soft"), as the change originated externally.

Externally generated change usually produces the greatest degree of negative feedback from those affected. By using *force field analysis* it can be seen that most of the driving forces came from the IT, other functions and even from external companies. The only exception was business users who, most affected, were not among the driving forces. The restraining forces were most probably amongst the end users, but that was mostly due to a feeling of uncertainty. Most of the forces can be evaluated to have been for and not against the change. The restraining forces were managed with good communication.

The emphasis in the change management of the SISU project was on *involvement, commitment and a shared perception.* Communication focused on increasing an understanding of the impact of the change consequently establishing a shared perception amongst all concerned.

The main trigger for change in the SISU case was an ageing platform which was causing increasing business risks. The trigger was more externally generated, and it was identified much earlier than the SISU project was established. The sixth key factor, *managing the triggers*, was properly managed by communicating the nature, impact

and rationale of the change very efficiently. A crisis environment was created (with reference to major problems with the entire sale system and business if the change was not implemented) and that caused willingness amongst the stakeholders.

Therefore, a successful change management approach was selected for the SISU project. All the major components were considered and the right aspects were emphasised in the change management actions.

5.2 Utilizing the UPM Change Framework in SISU

Change management training was not arranged specifically for the project. Instead, a common training course for all functions and the whole UPM personnel was used. This is why the timing of the change management training was very poor considering the SISU project; I received the training and all the UPM change management material at the end of the project. For that reason, I was not able to utilise the UPM change framework in the SISU project at all.

The SISU project had started several months before I joined the project. By that time, a stakeholder and other analyses were already done, and it had been decided that the emphasis of the change management activities would be on communication. Based on the feedback from the surveys, it was the right decision.

As the change effect for the end users was quite small, it was enough to concentrate on communication. However, there was one area that was ignored to a great extent – the internal change management of the project. The project members were not included as stakeholders. They did not necessary know what was communicated externally. The project internal change agents were nominated, but there was no systematic follow-up on how that worked. Internal project communication should have been planned better. As a conclusion, it can be stated that it is very important to identify all the stakeholders – also the change executors.

5.3 Global and Cultural Aspect

The SISU project included a mixture of cultures. The project team, which implemented the change, consisted of 11 nationalities and 10 companies. The stakeholders were located on every continent and in several countries. Different companies have their

own working cultures and different nationalities have their own cultural characteristics.

Fortunately, a majority of the project team had a high level of cultural competence. They had a great deal of experience working in a mixture of cultures. It made it possible to create familiarity between the project team members easily without any specific effort. Nevertheless, there could have been more internal project change management activities to help to achieve an increased feeling of collectivism. There were some activities of that nature but their timing was closer to the end of the project instead of the beginning. An example of those instances was one where everyone was asked to bring some special snacks from their own country. The snacks were gathered on one table and everyone could taste what they liked.

Communication to the stakeholders was mainly in English, as it is the official language of the UPM. Only the bulletins to the core stakeholders (the end users) were translated to different languages. Several info sessions were arranged repeating the same content at different times in order to accommodate the geographic distance and time differences. Occasionally, only one session was held in the late afternoon Finnish time in order to accommodate the stakeholders from Asia and America.

Not much consideration was given to different cultures. All received the same information and the same training, and all were expected to follow the same time-tables. The communicational content was not modified to adapt to the different cultures. The only time I remember us having discussions about different cultures and their ways of expression was in the feedback of the tester interviews.

6 DEVELOPMENT OF OWN EXPERTISE

There were many changes during my studies that had an effect on me. In the beginning, my second child was born and I was on maternity leave. Then I returned to work and joined the SISU project as a change expert. My previous role had been an IT assistant, so the role of a change expert was entirely new for me. It was truly a learn-by-doing experience as I did not have any previous experience in global projects or change management. Multicultural and change management studies provided good support for me.

UPM held an internal change expert training. This training lasted for two days and the trainer was from a company called ChangeFirst Limited. It was targeted for the whole UPM personnel in every function. The timing of the training was not optimal for me in terms of the SISU project; it was held at the end of the project.

The greatest support I received from a person from a company called Accenture. The project had started a few months before I joined and she had worked on it since the beginning as the change management responsible. She continued to work with the project a few hours per week and greatly helped me as she had a lot of change management experience.

For me, the whole SISU project was quite a culture shock. I returned from maternity leave to the middle of a very hectic project. I had to go through my personal change curve in a rush; I did not have time to adapt myself to the changes. Already waking up early every morning (after a night slept poorly because of the baby) and leaving to go to work was challenging, let alone adaptation to the hectic working life; new colleagues, new work, travelling to the project office (almost 300 km per day) and trying to balance family and work.

I could not stay entire weeks in another city far away from my family nor travel there every day. Therefore, I was not there as much as the others in the project group. I felt like an outsider during the whole project and the main reasons for that were cultural differences. The project group was established several months before I joined it. The others had already created familiarity between them; in other words, the project culture. I found it difficult to connect to that culture because I was not there as much as the others. In addition, the whole team was new to me, the other companies involved and their respective working cultures were new to me, and even the work itself was new to me. According to Rathje (2007), the challenge of intercultural interaction has to be understood as a lack of sense of belonging to the other party involved. I really missed a sense of belonging during the project.

Rathje (2004) states that familiarity with cultural differences, rather than compliance with norms and rules, forms a stable basis for organisational effectiveness. I can recognise that in myself, too. I would have been much more effective during the project if I could have been able to establish familiarity between myself and the other project members. Despite that, I learned a great deal about change management and project

work during the assignment. After the project, I worked a half a year as an expert in license management and currently, I work as a manager in license management. Change management and intercultural skills are also very important in license management, and I believe that all the knowledge gained during my studies and during the writing of this thesis has helped me achieve the position I am in currently.

7 CONCLUSIONS

Change itself is a journey. It is not just the end result, for example a new way of working, but it is the whole development from the current state to the future state. During the writing of this thesis, it became obvious that the journey is affected by numerous different factors. Change management includes all the actions which help individuals go through that journey. In the title of this thesis, I pose the question of whether change management should be as extensive as the effect of the change is. The change effect should not be the only criteria used to choose correct change management actions as it is too narrow an approach. Change and its outcome are not necessarily easy to measure. The whole journey of change should be evaluated in order to assess the extent of the needed change management instead of just the effect of the change.

I was not able to find any simple and easy to use template for the evaluation of change. Literature offers many factors associated with change classification and extensive assessments are required to evaluate each factor. Therefore, I created a simple template to help with measuring change (Attachment 1). Based on twelve simple questions with yes/no answers, one will form an understanding of the amount of needed change management activities. In addition, different factors can be assessed more profoundly when necessary. It is my recommendation that the template should be included in the UPM change framework.

During the case study, I noticed very concretely how greatly culture affects everything. I find Rathje's cohesion-based concept of culture (Figure 6, page 23) extremely applicable and agree that culture is rather glue than a mould. In change management, it is important to understand that it is rather the establishment of normality than the generally agreed-upon norms or values that gives cultures their cohesion. Establishment of normality helps to achieve the future state in change, too.

Culture is an essential component of change. The change management literature should put a greater emphasis on the importance of cultural aspects. Even very homogenous groups always involve several collectives and different cultures. The UPM change management material should include culture as one of the factors it covers. In a global company with global matrix organisations, the different cultures are visible every day. Implementing successful change in such an environment absolutely requires respect of cultural aspects. The level of cultural cohesion is one of the main factors affecting the extent of change management needed.

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Template for measuring change

	Strong yes	Yes	yes / no	No	Strong no
1. Is the change story ambiguous to stakeholders?					
2. Can change potentially reduce jobs?					
3. Is stakeholder group big?					
4. Is stakeholder group heterogeneous?					
5. Will the cost of the change failing be high?					
6. Is strong commitment from employees needed?					
7. Is there going to be significant shifts in strategies, processes, practices and systems?					
8. Are there stakeholders from several countries/companies/working cultures?					
9. Will change affect to the global matrix organization (not simple line organization)?					
10. Does it require lot of work to achieve change? (e.g. lot of technical work is needed, even if the change effect for stakeholders will be small)					
11. The amount of disruption created in individual employee's day-to-day work is big					
12. The amount of resistance to change will probably be high. (Consider the amount of disruption, culture, value system and history of past changes)					

The more you got yes answers the more heavier change management activities are needed.